

REMARKS

Favorable reconsideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

Claims 1-6 and 8-12 are currently pending. Claims 1, 8, and 12 have been amended by the present amendment. The changes to the claims are supported by the originally filed specification and do not add new matter.

In the outstanding Office Action, Claims 1, 2, and 6 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,289,102 to Ueda et al. (hereinafter “the ‘102 patent”) in view of U.S. Patent No. 6,381,202 to Shimoda (hereinafter “the ‘202 patent”), further in view of “Applicants’ Admitted Prior Art” (hereinafter “the Background Art”); Claims 3-5 and 8-12 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the ‘102 and ‘202 patents and the Background Art, further in view of U.S. Patent No. 6,512,882 to Teunissen (hereinafter “the ‘882 patent”).

Applicant wishes to thank the Examiner for the interview granted Applicant’s representative on October 7, 2010, at which time a proposed amendment to the claims was discussed. At the conclusion of the interview, the Examiner indicated that the proposed amendment appears to overcome the outstanding rejections of the claims.

Amended Claim 1 is directed to a non-transitory information recording medium storing encrypted content, comprising:

a first recording area including content and an entity code that is set for each entity included in a manufacturing route of said information recording medium, wherein the first recording area includes an encryption processing unit that is encrypted by a key generated based on a seed that provides encryption processing key generating information for each encryption processing unit, wherein said entity code is stored in an encrypted area that is encrypted by said key generated based on said seed, said encrypted area not overlapping an area in which said seed is recorded, wherein said entity code includes

an authoring studio code identifying an authoring studio and a disc manufacturer code identifying a manufacturer; and

a lead-in area including an encrypted copy of the authoring studio code and an encrypted copy of the disc manufacturing code, wherein during reproduction control processing the encrypted copy of the authoring studio code and the encrypted copy of the disc manufacturing code are decrypted and compared to the authoring studio code and the disc manufacturer code included in the first recording area.

The changes to Claim 1 are supported by the originally filed specification and do not add new matter.¹

Regarding the rejection of Claim 1 under 35 U.S.C. § 103(a), the Office Action asserts that the ‘102 patent discloses everything in Claim 1 with the exception of “. . . said entity code includes an authoring studio code identifying an authoring studio and a disc manufacturer code identifying a manufacturer,”² and relies on the ‘202 patent and the Background Art to remedy that deficiency.

The ‘102 patent is directed to an information recording medium that includes a lead-in area not accessible by devices other than a disc reproducing device, and a data recording area. Further, the ‘102 patent discloses that key information is recorded in the lead-in area, scrambled data is recorded in the data recording area, and the scrambled data is descrambled based on the key information. In particular, as shown in Figure 3, the ‘102 patent discloses that the lead-in area includes an initial value table. In particular, the ‘102 patent discloses that the initial value table includes a table having a list of seeds and associated initial values, which are recorded in the lead-in area.

However, as admitted in the outstanding Office Action, the ‘102 patent fails to disclose that an entity code is stored in an encrypted area that is encrypted by the key generator based on the seed, wherein the entity code includes an authoring studio code

¹ See, e.g., Figures 1 and 13 and the discussion related thereto in the specification.

² See page 5 of the outstanding Office Action.

identifying an authoring studio and a disc manufacturing code identifying a manufacturer, as recited in Claim 1.

Further, Applicants respectfully submit that the '102 patent fails to disclose an information recording medium having a lead-in area including an encrypted copy of the authoring studio code and an encrypted copy of the disc manufacturing code, wherein during reproduction control processing, the encrypted copy of the authoring studio code and the encrypted copy of the disc manufacturing code are decrypted and compared to the authoring studio code and the disc manufacturer code included in the first recording area, as recited in amended Claim 1. As admitted in the outstanding Office Action, the '102 patent is silent regarding the authoring studio code, so that it follows that the '102 patent is silent regarding the lead-in area having an encrypted copy of the authoring studio code and the reproduction control processing recited in amended Claim 1.

The '202 patent is directed to an information recording/reproducing apparatus for recording information to a recording disc by irradiating a recording beam light to the recording disc according to a recording signal that is indicative of information data. In particular, as shown in Figure 3, the '202 patent discloses that the recording/reproducing apparatus includes means for selecting one of a first recording standard and a second recording standard based on a common disc type information and predetermined information that can be stored in a recording disc. Further, the '202 patent discloses that the common disc type information is information indicative of a disc type of the recording disc, and that the predetermined information can be information indicative of a disc manufacturer. Thus, the '202 patent discloses a system in which, based on the management data read from the recording disc, the disc can be recorded in different ways.

However, the Office Action admits that the '202 patent fails to disclose that the entity code is stored in an encrypted area that is encrypted by the key generator based on the seed,

the encrypted area not overlapping an area which the seed has recorded, wherein the entity code includes an authoring studio code identifying an authoring studio code and a disc manufacturer code identifying a manufacturer, as recited in Claim 1.

Further, Applicants note that the Response to Arguments section on page 3 of the outstanding Office Action asserts that column 4, lines 36-65 and Figure 4 in the '202 patent discloses the use of "multiple manufacturing codes." Applicants respectfully disagree. Rather, the '202 patent merely discloses a single manufacturing code D1, which can take on various values such as a01, b01, c01, and d01. However, the '202 patent only discloses an area having a single manufacturing code.

Further, Applicants respectfully submit that the '202 patent fails to disclose a lead-in area including an encrypted copy of the authoring studio code and an encrypted copy of the disc manufacturing code, wherein during the reproduction control processing, the encrypted copy of the authoring studio code and the encrypted copy of the disc manufacturing code are decrypted and compared to the authoring studio code and the disc manufacturer code included in the first recording area, as recited in amended Claim 1. In particular, as admitted in the outstanding Office Action, the '202 patent is completely silent regarding an authoring studio code.

The Background Art is directed to a discussion of various problems in preventing the illegal copying of compact discs and DVDs. In particular, the Background Art discusses three examples of the illegal copying of content, including (1) videotaping and theft in movie theaters and theft from a content owner, (2) theft from an authoring studio, and (3) replication from an authorized DVD-video using code-breaking techniques. Regarding theft from an authoring studio, the Background Art states, in its entirety, that "[i]n the process of authoring which is ordered by a content owner, content may be stolen. Stolen content is brought to DVD manufacturing facilities to produce DVD-video ROMs." In this regard, Applicants

note that page 5 of the outstanding Office Action merely states that page 4 of the Background Art “. . . teaches that authoring studios are used in the manufacturing process of a disc.”

However, Applicants respectfully submit that the Background Art fails to disclose that an entity code is stored in an encrypted area that is encrypted by the key generator based on the seed, where an entity includes an authoring studio code identifying an authoring studio, as recited in Claim 1. Rather, as noted by the outstanding Office Action, the Background Art merely discloses that content may be stolen during the process of authoring of a DVD at an authoring studio, which is a physical location, such as a building. Nowhere does the Background Art teach or suggest that an entity code that is stored in an encrypted area of a disc includes an authoring studio **code** identifying an authoring studio (in addition to a disc manufacturing code identifying a manufacturer), as required by Claim 1.

Further, Applicants note that page 3 of the Office Action asserts that because the Background Art discloses that an authoring studio is used in the manufacturing process of a disc, that it would have somehow been obvious to include an authoring studio **code** as part of an entity code to be used to uniquely identify a disc. Further, the Office Action asserts that putting an authoring studio code on the disc would be somehow “choosing one code from a finite number of possible identifying codes, with a reasonable expectation of success.” However, the Office Action has not identified the finite space of the identifying codes, of which the authoring studio code is presumably one. On the contrary, Applicants respectfully submit that an infinite number of codes could be included on the disc, and the Office Action has not provided any reference or any teaching that including an authoring studio code is merely one well known alternative. Rather, the Office is simply engaging in hindsight reconstruction of Applicants’ invention and using the mere mention of a physical authoring studio, to conclude that it would have been obvious to include an authoring studio code on the disc.

Further, Applicants respectfully submit that the Background Art fails to disclose a lead-in area including an encrypted copy of the authoring studio code and an encrypted copy of the disc manufacturing code, wherein during the reproduction control processing, the encrypted copy of the authoring studio code and the encrypted copy of the disc manufacturing code are decrypted and compared to the authoring studio code and the disc manufacturing code included in the first recording area, as recited in amended Claim 1. Rather, as admitted in the outstanding Office Action, the Background Art fails to disclose an authoring studio code.

Thus, no matter how the teachings of the '102 patent, the '202 patent, and the Background Art are combined, the combination does not teach or suggest the authoring studio code identifying an authoring studio, as well as a lead-in area including an encrypted copy of the authoring studio code and an encrypted copy of the disc manufacturing code, wherein during reproduction control processing, the encrypted copy of the authoring studio code and an encrypted copy of the disc manufacturing code are decrypted and compared to the authoring studio code and the disc manufacturing code included in the first recording area, as recited in amended Claim 1. Accordingly, Applicants respectfully submit that the rejection of Claim 1 is rendered moot and that amended Claim 1 patentably defines over any proper combination of the cited references.

Amended Claim 8 is directed to a data process method for generating data to be written to an information recording medium, comprising:

setting a position at which an entity code for an entity included in a manufacturing route of said information recording medium is to be recorded and setting said entity code in a program map table, wherein said setting step includes executing control such that said entity code is included in an encrypted area encrypted by a key generated based on said seed, without overlapping an area in which said seed is set, wherein said entity code includes an authoring studio code

identifying an authoring studio and disc manufacturer code
identifying a manufacturer;
generating a plurality of packets in which said program
map table is stored in a divided manner;
arranging said plurality of packets in a content stored
packet sequence in a distributed manner;
encrypting data included in an encryption processing
unit by use of a key generated based on a seed, which is
encryption processing key generating information that is set for
said encryption processing unit; and
encrypting the authoring studio code and the disc
manufacturer code using a same title key, for recording in a
lead-in area of the information recording medium.

The changes to Claim 8 are supported by the originally filed specification and do not add new matter.³

As discussed above, the combined teachings of the '102 and '202 patents and the Background Art fail to disclose that an entity code is included in an encrypted area encrypted by a key generator based on the seed, wherein the entity code includes an authoring studio code identifying an authoring studio and a disc manufacturing code identifying a manufacturer, as recited in amended Claim 8. Further, the combined teachings of the '102 patent, the '202 patent, and the Background Art fails to disclose encrypting the authoring studio code and the disc manufacturing code using a same title key for recording in a lead-in area of the information recording medium, as recited in amended Claim 8.

Regarding the rejection of Claim 8, Applicants note that the '882 patent is further cited to disclose the program map table recited in Claim 8. However, Applicants respectfully submit that the '882 patent fails to remedy the deficiencies of the '102 patent, the '202 patent, and the Background Art with respect to the claimed authoring studio code identifying an authoring studio, and the encrypting step recited in amended Claim 8..

³ See, e.g., Figure 1 and the discussion related thereto in the specification. See also Figure 17.

Thus, Applicants respectfully submit that the combined teachings of the '102, '202, and '882 patents and the Background Art fail to disclose that the entity code is included in an encrypted area encrypted by a key generator based on the seed, wherein said setting step includes executing control such that said entity code is included in an encrypted area encrypted by a key generated based on said seed, without overlapping an area in which said seed is set, wherein said entity code includes an authoring studio code identifying an authoring studio and disc manufacturer code identifying a manufacturer, as recited in Claim 8.

Further, Applicants respectfully submit that, no matter how the teachings of the '102, '202, and '882 patents and the Background Art are combined, the combination does not teach or suggest generating a plurality of packets in which the program map table (which includes the authoring studio code and the disc manufacturing code) is stored in a divided manner, and arranging the plurality of packets at a content stored packet sequence in a distributed manner, as required by amended Claim 8.

Further, Applicants respectfully submit that the combined teachings of the cited references fail to disclose setting a position at which an entity code for an entity included in a manufacturing route of the information recording medium is recorded and setting the entity code in a program map table, as required by amended Claim 8.

Accordingly, Applicants respectfully submit that the rejection of Claim 8 is rendered moot by the present amendment to that claim.

Amended Claim 12 recites limitations analogous to the limitations recited in Claim 8, and has been amended in a manner analogous to Claim 8. Accordingly, for the reasons stated above, Applicants respectfully submit that the rejection of Claim 12 is rendered moot by the present amendment to that claim.

Regarding the rejection of dependent Claims 3-5 under 35 U.S.C. § 103(a), Applicants respectfully submit that the '882 patent fails to remedy the deficiencies of the '102 and '202 patents and the Background Art as discussed above, and that the rejections should be withdrawn.

Thus, it is respectfully submitted that independent Claims 1, 8, and 12 (and all associated dependent claims) patentably define over any proper combination of the '102, '882, and '202 patents and the Background Art.

Consequently, in view of the present amendment and in light of the above discussion, the outstanding grounds for rejection are believed to have been overcome. The application as amended herewith is believed to be in condition for formal allowance. An early and favorable action to that effect is respectfully requested.

Respectfully submitted,

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